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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,157	08/10/2001	Katsumi Tsukamoto	1137-827	3642
6449	7590	05/13/2005	EXAMINER	
ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005			CONTEE, JOY KIMBERLY	
			ART UNIT	PAPER NUMBER
			2686	

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b><i>Advisory Action Before the Filing of an Appeal Brief</i></b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/913,157	TSUKAMOTO ET AL.
<b>Examiner</b>	<b>Art Unit</b>	
Joy K Contee	2686	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 11 April 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1.  The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a)  The period for reply expires 3 months from the mailing date of the final rejection.  
 b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) a set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2.  The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3.  The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a)  They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b)  They raise the issue of new matter (see NOTE below);  
 (c)  They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d)  They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4.  The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

6.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7.  For purposes of appeal, the proposed amendment(s): a)  will not be entered, or b)  will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1-11.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8.  The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9.  The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10.  The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11.  The request for reconsideration has been considered but does NOT place the application in condition for allowance because:

\_\_\_\_\_

12.  Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_

13.  Other: \_\_\_\_\_

*Marsha D. Banks-Harold*  
**MARSHA D. BANKS-HAROLD**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**

***Response to Arguments***

1. Applicant's arguments filed April 11, 2005 have been fully considered but they are not persuasive.

Applicant asserts that Reed fails to disclose "increasing or decreasing the field intensity and adjusting the time interval for field intensity measurement" and "a control unit adjusts a time interval for field intensity measurement in the measurement unit" see p. 6 of Remarks/Arguments.

In response to applicant's argument that the reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., increasing or decreasing the field intensity) are not recited as such (i.e., the claim recites "taking into consideration an increasing or decreasing tendency of the field intensity...", in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as described in

detail below, each secondary reference provides a suggestion for a reasonable combination to meet the limitations as claimed.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Claims 1 and 7

In response to applicant's argument that the reference fails to teach that a control unit adjusts the time interval for field intensity measurement in a measurement unit, examiner disagrees. Reed discloses that averaging units (140 & 145) (i.e., reads on field intensity measuring unit) determine received signal strength (RSSI) for handoff and other decisions (see col. 4,lines 24-27), wherein it is desirable to adjust the averaging interval for blocks 14 & 145 to get accurate measures of RSSI under various conditions of multipath fluctuation (col. 4,lines 28-31). Reed further indicates that for implementation of the aforementioned, a fading imbalance is calculated by a branch imbalance estimator (150) and a diversity selection counter (160) counts the number of antenna transitions per second (or suitable period) (see col. 4,lines 35-57). Hence, using the scaling unit (17) the number of antenna transitions is preferably combined with

a measure of branch imbalance to provide via fading quality estimator (180) a corrected estimate of apparent speed or the scaled count can be compared to a prior or predetermined count to generate a difference factor (see col. 5,lines 1-12).

Finally, Reed shows that a control line (190) provides adaptive interval control based on the speed estimate or difference factor, which allows small changes to be made in the number of samples that are averaged to improve the estimate of the average power on each branch (see col. 5,lines 22-52 and see Figs. 1,2 and 3) (reads on function of control unit, i.e., adjusting a time interval for field intensity measurement, in the measuring unit, taking into consideration an increasing or decreasing tendency of the field intensity (i.e., interpreted as fading characteristics) with respect to the base stations (or reads on branches) measured by the measuring unit).

Claims 2,6 and 8

Applicant argues that Reed does not disclose the claimed control unit, nor that the time interval for field intensity measurement with respect to a base station is reduced as the field intensity undergoes an increase and the time interval for field intensity measurement with respect to the base station is extended as the field intensity undergoes a decrease. Examiner disagrees. Examiner contends that Reed meets the limitations as stated since at slower speeds (reads on constant averages in multipath fluctuating environment or decreasing) a longer averaging interval is desired and higher rates of multipath fluctuation (reads on increasing field intensity) causes fewer successive diversity periods (reads on reduces the time interval for measurements in a

fast fading environment) (see col. 4,lines 31-34 and lines 52-56 and see Figs. 1,2 and 4).

Claims 3,4,9 and 10

Applicant argues that Kimura does not teach or suggest controlling the time interval for field intensity measurement...taking into consideration absolute values of field intensity with respect to base stations. However, examiner disagrees. Kimura was introduced to the previously established combination of Konishi and Reed to meet the portion of the limitation "taking into consideration absolute values of field intensity". Kimura clearly shows in a similar field of endeavor, which particularly includes electric field intensity measurements of broadcast stations locating in blocks or "grid" (see Kimura, col. 1,lines 37-54, col. 2,lines 35-58,col. 4,lines 12-42, col. 9,lines 26-67). Kimura simply provides suggestion for why one of ordinary skill in the art would consider an absolute values of field intensity wherein the conversion of A/D warrants an absolute value as is well known in the art (col. 10, lines 12-24).

Claims 5 and 11

Applicant argues that Levanon, U.S. Patent No. 6,369,754 is not relevant to controlling the time interval for field intensity measurement with respect to a base station. However, Levanon was introduced to the previously established combination Konishi and Reed to show that during fine positioning a request from a gateway (reads on base station) or user terminal, measurements are taken of a received signal, taking into consideration a direction of movement of a satellite (col. 5,lines 58-66).

**Amended claims would be rejected as provided below.**

***Claim Objections***

2. Claim 2 is objected to because of the following informalities: claim 2 references "the cell switching unit according to claim 1", claim 1 recites "a cell switching device". Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konishi, U.S. Patent No. 5,898,926,in view of Reed et al. (Reed), U.S. Patent No. 5,634,206.

Regarding claims 1 and 7, Konishi discloses a cell switching device (and method) comprising:

a field intensity measuring unit that measures a field intensity of signals from each of a plurality base stations adjacent to a base station servicing a mobile station (col. 2,lines 36-60); and

a switching unit that receives results of the measurements provided by said measuring unit, when the field intensity of a measured base station exceeds a reference

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intensity, switches to that base station for communication with the mobile station (col. 2,lines 49-65).

Konishi fails to disclose: a control unit that adjusts a time interval for field intensity measurement, in the measuring unit, with respect to the base stations, taking into consideration an increasing or decreasing tendency of the field intensity with respect to the base stations measured by the measuring unit.

In a similar field of endeavor, Reed discloses adjusts a time interval for field intensity measurement, in the measuring unit, with respect to the base stations, taking into consideration an increasing or decreasing tendency of the field intensity (reads on adjusting the average interval to get accurate measures of RSSI under various conditions) (col. 4,lines 27-67).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Konishi to include adjusting the averaging interval for the purpose of obtaining accurate measurements under multi-path fluctuation.

Regarding claims 2 (in light of the objection above) and 8, Konish as modified by Reed discloses the cell switching unit (and method) according to claims 1 and 7, respectively, characterized in that:

said control means reduces the time interval for field intensity measurement with respect to a base station as the field intensity undergoes an increase, and extends the time interval for field intensity measurement with respect to the base station as the field intensity undergoes a decrease (see Reed, col. 5, lines 40-65).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Konishi to include adjusting the averaging interval for the purpose of obtaining accurate measurements under multi-path fluctuation.

Regarding claim 6, Konishi as modified by Reed discloses the cell switching unit according to claim 1, characterized in that:

said control means is provided in the base station (i.e., base station measures its own RSSI) (see Reed, col. 4, lines 8-27).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Konishi to include a back end receiver for the purpose of estimating fading quality in a base station.

5. Claims 3-4 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konishi and Reed, in view of Kimura et al. (Kimura), U.S. Patent No. 5,649,319.

Regarding claims 3 and 9, the combination of Konishi and Reed disclose the cell switching unit (and method) according to claims 1 and 7, respectively, but fails to explicitly characterize:

said control means controls the time interval for field intensity measurement with respect to the base stations, taking into consideration absolute values of field intensity with respect to the base stations.

In a similar field of endeavor, Kimura discloses taking into consideration absolute values of field intensity with respect to the base stations for measuring quality indicators (col. 10, lines 12-14).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination of Konishi and Reed to take the absolute values of the RSSI with respect to the base stations for the purpose of measurement techniques and conversion therein (e.g., A/D converted DC level) (see Kimura, col. 9,lines 32-59).

Regarding claims 4 and 10, the combination of Konishi and Reed as modified by Kimura discloses the cell switching unit (and method) according to claims 3 and 10, and further teaches wherein said control means reduces the time interval for field intensity measurement with respect to a base station as the field intensity with respect to the base station becomes large (see Reed, col. 5,lines 40-65).

Kimura discloses taking into consideration absolute values of field intensity with respect to the base stations for measuring quality indicators (col. 10, lines 12-14).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination of Konishi and Reed to take the absolute values of the RSSI with respect to the base stations for the purpose of measurement techniques and conversion therein (e.g., A/D converted DC level) (see Kimura, col. 9,lines 32-59).

6. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konishi and Reed, in view of Levanon, U.S. Patent No. 6,369,754.

Regarding claims 5 and 11, the combination of Konishi and Reed discloses the cell switching unit (and method) according to claims 1 and 7, respectively, but fails to explicitly characterize in that: said control means controls the time interval for field intensity measurement with respect to a base station, taking into consideration a direction of movement of a satellite.

In a similar field of endeavor, Levanon discloses taking into consideration a direction of movement of a satellite in making measurements in a system for determining the location of a user terminal (col. 5,line 56 to col. 6,line 17).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination of Konishi and Reed to include positioning a satellite in conjunction with the base station system for the purpose of accurately determining the location of a mobile user.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K Contee whose telephone number is 571.272.7906. The examiner can normally be reached on M through F, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571.272.7905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JC

5/11/05